

Bridging the Affordability Gap:

How Can Faith Based Organizations
Leverage Their Real Estate Assets?

Georgia Institute of Technology
School of City and Regional Planning

Written by Alex Hayden Seidenberg
Advised by Dr. Nisha Botchwey

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INTRODUCTION

Like many of the most populous cities across the United States, the City of Atlanta faces an affordable housing deficit. A combination of market and cultural forces has made Atlanta increasingly less and less affordable. A movement of wealthier households moving into in-city neighborhoods has increased housing prices. The dramatic crash of the housing market in 2007 disproportionately affected black Atlantans, while the subsequent recovery favored cash-rich investors and “house flippers,” who bought entire city blocks in majority black neighborhoods (Mariano, 2014). The reemergence of Atlanta’s economy has led to a growth in high wage jobs in the information, technology, and finance sectors. While it is difficult to argue with the benefits of increases in highly skilled, higher paying jobs and higher returns on one’s investment in one’s home; wealthier households have disproportionately been the beneficiaries of these effects.

Middle-income and lower-income households have been on the returning end of stagnant wage growth, rising rents, and perhaps most detrimentally - prohibitively high property taxes (DeSilver, 2018). The 2018 Fulton County property value assessment increased 28% from 2016 levels, due to a freeze in values in 2017. In Atlanta, the median increase on property value was 33%, which meant that one third of Atlantans saw an increase of over 50% in their property value assessment (Northam & Elassar, 2018). These dramatic increases bear the most burden on lower-income and fixed-income households, who are either forced to sell their homes or rent their homes at higher prices to account for increased property taxes (Fulton County Tax Appeal Project, 2020).

The need to address affordable housing in Atlanta has never been greater. National rents have increased dramatically since the end of the Great Recession. Price increases have been especially steep in the last five years. According to Zillow Research, the purchase price of homes has risen nationally from \$169,000 in 2014 to \$229,000 in 2019 (Zillow Research, 2020). Price increases have also affected historically low-price markets in the Sunbelt, like Atlanta, Nashville, and Dallas. In Atlanta, between 2014 and 2019, median home prices increased from \$148,000 to \$229,300 (Zillow Research, 2020). During that same period, rents increased 24% from \$1,173 to \$1,454.

These drastic price increases have been the impetus for the City of Atlanta to make a concerted citywide effort to address issues of affordability. One Atlanta, the city's "housing affordability action plan," identified that Atlanta has an affordable unit deficit that ranges from 20,000 to 25,000 units (Trubey & Deere, 2019). Additionally, the city loses 5% of its affordable housing stock every year (Jacobs, 2019). In 2019, Mayor Keisha Lance Bottoms committed to creating or preserving 20,000 affordable units by 2026, in addition to raising \$1 billion through public, private, and philanthropic sources (Trubey & Deere, 2019).

A recent interest has arisen in the ability of faith-based organizations to bridge this gap in affordable housing by leveraging their real estate assets into affordable housing units and other facilities beneficial to the community. Faith Based Organizations (FBOs) are diverse groups, inclusive of all houses of worship, and can be categorized into three sets: (1) congregations; (2) national networks, which include national denominations, their social service arms (e.g., Catholic Charities, Lutheran Social Services), and networks of related organizations (such as YMCA and YWCA); and (3) freestanding religious organizations (which are incorporated separately from congregations and national networks but have a religious basis) (Vidal, 2001). The combination of faith-based organizations represents "the third largest component of the nonprofit sector in the U.S., after health and education" (Vidal, 2001).

With dramatic price increases in housing, effort and urgency from city officials to address affordability, and the emergence of an interest in innovative partnerships with FBOs, the time for the City of Atlanta to find a solution to this issue is important now, more than ever. As a result, this paper will address the capacity of faith-based organizations to bridge the gap in affordable housing by leveraging their real estate assets. In doing so, this paper will achieve two goals:

- 1) Assess whether partnerships with faith-based organizations provide a practical solution to solving the affordability deficit in Atlanta.
- 2) Calculate how much land faith-based organizations in Atlanta own that can be deployed for affordable housing development.

The first section of this paper is a literature review that discusses the history and challenges of faith-based institutions as partners in development and solving urban issues and includes two case studies of successful partnerships. The second section of the paper makes the case for why faith-based organizations provide a practical solution to the affordable housing issue in Atlanta. The third section of the paper introduces the methods used in obtaining data, cleaning data, reconciling data for the parcel analysis. The fourth section details the analysis and results of how much land faith-based organizations own in Atlanta and how much of it could be deployed for affordable housing. The fifth and final section of the paper presents the conclusion, which discusses ways in which this research can continue.

LITERATURE REVIEW

For decades, FBOs have used a mission driven approach to pursue housing and community development goals. Jamie Smarr, who oversees partnerships between the NHP Foundation (NHPF), a non-profit affordable housing developer, and other nonprofit organizations, says that FBOs have maintained a long-standing stake in the realm of affordable housing (Burns, 2018). In the context of the late 1990s, he points out that “many churches are facing declining attendance and are looking for new ways to engage with the local community” (Burns, 2018). Some FBOs are repurposing unused land, razing existing buildings, and rebuilding new structures to include housing, in addition to more typical religious based development like churches, schools, and daycares (Burns, 2018).

Director of Economic Justice at the Interfaith Alliance of Colorado, Nathan Hunt, adds that “churches want to be part of solutions that address the root causes of problems, such as a lack of affordable housing, in their neighborhoods.” He notes, “communities of faith have as part of their mission and identity a call to serve the community, and that’s often framed in terms of loving their neighbors” (West, 2019).

As significant landowners and community organizers, FBOs possess access to crucial assets in the development process and have proven to be reliable development partners for municipal governments and developers. As a 1999 Department of Housing and Urban

Development (HUD) paper argues, “FBOs are well positioned as community builders, enjoying support from the left and right in American politics and reaching out to all of the nation’s major ethnic groups” (Vidal, 2001). The process of building political support for affordable housing includes, “grassroots organizing, coalition building with other organizations, policy advocacy, and more,” which FBOs are well positioned to do given their voice and organizational capacity (Vidal, 2001). In 1999, the Greater Boston Interfaith Organization and United Power in Chicago were two significant FBOs which operated on a large scale, were membership based, and included organizing efforts around the church that included a robust housing agenda (Vidal, 2001). The Greater Boston Interfaith Organization and United Power in Chicago raised awareness for familiar urban issues at the time, like rent burden, homelessness, and the presence of lead in buildings, among others.

In the realm of policy development, FBOs act much like nonprofit advocates, and focused their efforts on issues pertaining to tenant rights, landlord regulations, and rent control. Aside from their involvement in the grassroots nature of coalition development, FBOs have also worked on the side of policy development interfacing with elected officials and decision makers, in addition to lobbyists and interest groups (Burns, 2018).

Developers who would make suitable partners for faith-based development are likely corporations that are not-for-profit, or that have a strong interest in affordable housing. Aside from any ulterior motive, partnering with land rich FBOs allows developers to often purchase land at a below market price. According to Nathan Hunt, land costs are often around 20 percent of an affordable housing deal. He notes that “congregations play a big role in helping to take a good chunk of that cost out of the process or just make sure that land falls into the hands of responsible developers who are going to build equity and inclusion into their properties” (West, 2019).

History

The history of FBOs being institutionally involved in community-centric housing began in the 1960’s after the Department of Housing and Urban Development passed the Housing Act of 1959. Section 202 of the legislation - Supportive Housing for the Elderly - was comprised of two components: capital and rental assistance. The capital advances provided nonprofits with the financing to cover construction and acquisition, or rehabilitation

expenses. HUD provided Project Rental Assistance Contracts, which “made up the difference between the reduced rents that eligible seniors are required to pay (30 percent of adjusted income) and the operating expenses of a particular development” (Vidal, 2001). HUD also offered pre-development grants, as part of the Section 202 funding package. By the time Section 202 was phased out in the late 1980s, FBOs were responsible for developing and/or managing approximately half of the Section 202 produced elderly housing in the country (Vidal, 2001).

In a report to HUD, Avis Vidal reported that much of the interest in FBOs is based on “the existence of a small number of high-profile successes in housing and economic development sponsored by large churches...and high expectations about the potential of faith communities to address problems that others have found intractable” (Vidal, 2001). FBOs have founded numerous community development corporations (CDCs) in their quest to advocate for, develop, and/or manage affordable housing. A survey by the National Congress for Community Economic Development (NCCED) in 1999 found that 1 out of 7 of the 3,600 self-identified CDCs indicated a faith affiliation or origin, and FBOs produced an estimated 1 in 6 CDC-developed housing units (National Congress for Community Economic Development, 1999). In 2001, the Fannie Mae Foundation estimated that at least 355,000 affordable housing units were developed, in some part, by FBOs (Vidal, 2001). A 1988 HUD survey of service providers to the homeless, for example, revealed that about one-third of all emergency and temporary shelters were church affiliated (Vidal, 2001). This fraction has likely gotten larger in recent years as cities like Atlanta and Washington D.C. have seen their two largest low-barrier homeless shelters close within the last two years.

The FBO presence in the housing sector is particularly significant in communities with a long history of community-based development activity. In the Philadelphia region, for example, a survey in the late 1980s found that about 40 percent of the 70 community development organizations affiliated themselves with churches, parachurch organizations, or coalitions of churches. These groups produced about 40 percent of all nonprofit housing in the metro area and almost 70 percent of its elderly housing. Many other development organizations had clergy in key board or staff positions (Nowak et al., 1989).

In the 1990s observers began to refer to the primarily local arrangements for blending resources available in the public, private, and nonprofit sectors as affordable-housing or community development “systems.” Faith institutions play important roles in many of these local systems, which involve a complex mix of cooperation and competition, political maneuvering, and operational tinkering (Walker and Weinheimer, 1998). To better recognize and support FBO efforts, during the Clinton administration HUD created a special office for faith and community partnerships led by a clergyman based in the Office of the Secretary, reviving a senior policy development and budget advocacy role first created for a Catholic priest during the Carter administration. Likewise, the Bush administration’s White House Office of Faith-Based and Community Initiatives has advocated expanded involvement by FBOs in housing-service provision and reviewed HUD programs for barriers that thwart such involvement (Vidal, 2001).

Faith-based development has also resulted in innovative housing delivery tactics. In Seattle, another large city facing dramatic price increase and housing shortages, the city’s first tiny home village was hosted on church land. In 2013 University Christian Church (UCC), sold a parcel in Seattle’s University District to Bellwether Housing, a nonprofit developer, at below-market rates with the stipulation that it be dedicated to low-income housing (West, 2019). The land was sold to Bellwether as a 30% discount. The land was appraised at \$6.8 million and sold to Bellwether for \$4.8 million. The 133-unit development opened in 2018, and dedicates forty units to individuals escaping homelessness, with the rest of the units affordable to households earning up to 60% of the area median income (West, 2019).

Challenges

While faith based development has often been a productive way to develop and manage affordable housing, it does not come without its challenges and pitfalls. Perhaps the most glaring challenge is the lack of expertise that congregations and their leadership have when it comes to real estate development (Burns, 2018; Calugar, 2018). It is crucial for FBOs to make meaningful partnerships with developers, financial advisors, non-profits, and other entities to ensure a mutually beneficial development process.

Financial advisors can also ensure that the church is an equitable partner in the deal as opposed to solely a tenant (Burns, 2018; Calugar, 2018). The right partners will help faith-based owners maintain some form of ownership in perpetuity. “It all begins with finding a team that respects the faith-based vision and takes the leaders along for the journey. If the developer is just showing up to have you sign papers, that’s not really a relationship,” added Smarr, of NHPF. Smarr continues, “Ideally, we try to leave churches in a better position, managerially and financially, in order to better help communities” (Burns, 2018).

Veteran banker, Dave Walsh of Chase Bank, reinforced the importance of an experienced financial team. “The bank looks at whether an organization has the capacity to undertake a project and if it has completed a similar project in the past. And while steering clear of making partner recommendations, [I] want to know who makes up the team: the developer, the contractor and the property manager, e.g.” Walsh says (Burns, 2018). He also advises affordable housing prospects to gain familiarity with existing programs (Burns, 2018).

In addition to various organizational and leadership related challenges, there are also the technical and financial challenges involved. The tax code can be complicated, and continuous changes make understanding the nuances even more difficult. Mike Greenwald, Partner of Friedman LLP, a leading accounting and advisory firm that serves the affordable housing community, warned that “there are tripwires related to some very complicated rules about what not-for-profits can and can’t do in order to make money” (Burns, 2018). He continues, “a not-for-profit considering a multi-use build-out is at risk if they don’t properly separate for-profit activity from not-for-profit. If a not-for-profit owner constructs market-rate or high-end housing, it will fall outside the mission of the non-profit. Without the proper separate ownership structure, taxable income from such property could jeopardize a not-for-profit’s status” (Burns, 2018). Often partnerships will create “condo split” structures to avoid this. A new mixed-use development can be split into separate condominiums and owned by different, unaffiliated entities.

Recent changes have impacted low income housing tax credits (LIHTC), the most widely used program for developing newly constructed affordable housing. LIHTC is a program that encourages capital and investment in affordable housing in exchange for tax credits. The Internal Revenue Service (IRS) doles out 9% tax credits or 4% tax credits

based on a state's population, and that state has a governmental agency that uses a rigorous selection process to select the best LITHC projects. An investor exchanges capital and equity for those tax credits that help investors offset their federal tax obligations. Both 4% and 9% LITHC are now worth less because the corporate tax rate was cut from 35% at the top to 21% (Burns, 2018). The result is that investors in the LIHTC now pay less for each dollar of credit because the net after tax benefit is worth less to them, necessitating additional ways to close funding gaps.

Case Studies

There have been two successful and innovative examples of developing or redeveloping faith based organization-owned property in recent history. The first example is a case of a financially failing church that had to find a creative way to stay afloat. The second example is of a larger player in the affordable housing space, Enterprise Community Partners, and their ability to partner with FBOs to deliver significant numbers of affordable units.

1) White Rock United Methodist Church

Larry Duggins, a former investment banker, found himself dedicated to helping churches maintain their financial autonomy before they were forced to close their doors. He notes that “years ago, the neighborhood church was the place many in America got together and, along with local schools, was where they got to know their neighbors, [but] this model is no longer relevant for many people, so churches have to think creatively about how to help people encounter others and God in their everyday lives” (Merritt, 2018).

To test their idea, Duggins approached the pastor of White Rock United Methodist Church in Dallas about collaborating. At its peak, White Rock United Methodist hosted a massive congregation with robust weekly programming, a strong reputation in the community, and a 60,000-square-foot building. But changes in the composition of the neighborhood caused church membership and attendance to wane. Duggins converted the fellowship hall into a co-working space and transformed Sunday school rooms into a workshop for local artisans, including a florist and a stained-glass-window artist. It formed an economic empowerment center, where the group teaches a local population of African refugees language and business skills. The space was with a yoga studio and a community dance studio (Merritt, 2018).

2) Enterprise Community Partners' Faith Based Development Initiative

The Faith Based Development Initiative (FBDI) began in 2006 under the guidance of David Bowers, Vice President and Market Leader of the Mid-Atlantic Washington, D.C. branch, at Enterprise Community Partners. The FBDI has been the largest, most systematic, and institutionally supported attempt to leverage the real estate resources of faith based institutions into affordable housing units and other community facilities. The FBDI is responsible for the delivery of 1,261 units of affordable housing, along with various community facilities, like a community banquet hall space and a community-centric health clinic (McLaughlin, 2016).

The FBDI provides legal resources, technical assistance, and capital to assist organizations in developing underutilized real estate assets into affordable homes and other community facilities (McLaughlin, 2016). The FBDI connects the faith community with pro bono legal services through the DC Bar Pro Bono Program, the Maryland Volunteer Lawyers Service and area legal clinics, and university law programs. The FBDI also makes referrals to fee-based attorneys with specific knowledge and capacity to work with faith-based organizations. In terms of technical assistance, the FBDI provides preliminary property analysis, which includes a community profile and zoning analysis. It also acts as a trusted partner by providing organizational assessment, capacity building and referrals to developers and consultants (McLaughlin, 2016).

The FBDI provides capital to FBOs through grants, loans, and tax credits through four distinct ways. First, pre-development grants of up to \$10,000 are offered, with a 25% match, which help cover the costs of an initial market study or feasibility analysis. Second, the FBDI program gives FBOs access to community loan products, which come in the form of early predevelopment loans, secured predevelopment loans, property acquisition loans, or community facilities loans. Third, Enterprise and FBDI offer long term mortgages for new construction and rehabilitation for affordable and market-rate multifamily housing. And last, the program can give developers access to Low Income Housing Tax Credits or New Market Tax Credits, the most lucrative financial tools in ensuring the success of an affordable housing development (McLaughlin, 2016).

THE CASE FOR FAITH BASED INTERVENTION IN ATLANTA

Is a Faith Based Intervention a Practical Solution for Atlanta?

First, FBOs are mission driven. Faith based organizations operate with a pursuit of purpose and have worked to solve a variety of societal issues in their communities including sheltering the homeless, collecting food for those who are underfed or malnourished, and other volunteer efforts. Because of their mission-driven nature, FBOs are more likely to maintain the affordability of units, than a for-profit developer. Most of the affordable units developed today are done so because of the LIHTC Program. LIHTC is responsible for creating 90,000 to 100,000 units of affordable housing every year (Novogradac Inc., 2017). However, the affordability on these units has a timeline of a minimum of 15 years. Once the 15 year mark is up, the units may be rented at market rate. This turnover from affordable to market rate happens frequently, especially with for-profit developers, who often then sell the properties as income producing investments. FBOs are more likely to retain the affordability of the units over time, in part because they are mission driven, and because of the noticeable positive effects it would have on the surrounding community.

Second, FBOs have an abundance of land and real estate assets (or so we think). A Curbed article written in 2017 by Timothy Schurer cites GoodLands, a non-profit organization who tasked themselves with the ambitious mission of creating an ecological land plan for the Catholic Church. Molly Burhans, the founder of GoodLands, posited that “With more than 1 billion adherents, the Catholic Church is one of the largest, if not the largest, nongovernmental landowners in the world. One estimate puts the Church’s holdings close to 177 million acres, or 277,000 square miles. If those properties were grouped together and placed on a list of the world’s countries by land area, it would fall within the top 50, higher than both France and Spain” (Schuler, 2017). Burhans continued to say that “in the U.S., Catholic organizations own property in nearly every county of all 50 states. Some of those parcels are thousands of acres in size” (Schuler, 2017).

In actuality, there has been very little quantitative research to understand how much land religious institutions own and where that land is. The difficulty with cataloging these

assets is four-fold. First, the data is localized. Property and parcel level data is found in the databases of tax assessors in municipalities and counties across the United States. The necessary data is only agglomerated at the county level, meaning one would need to mine and analyze hundreds of thousands of rows of data for each county. Second, the required data isn't uniform. Even if every piece of necessary data was acquired, there would be so many discrepancies between how tax assessors catalogue and share their data. The most robust data is stored in shapefiles, through Geographic Information Systems (GIS), that are easy to manipulate. While larger, urbanized cities and counties tend to have this data, smaller, more rural municipalities do not. Third, it would take unprecedented time to collect and analyze this data at a state scale, let alone a national, or international scale. The underlying cause of this study is very much to understand exactly how much land FBOs own in the City of Atlanta. One last note about potential real estate assets is that in addition to vacant land or the potential redevelopment of derelict properties, FBOs have the ability to capitalize on underutilized parking lots as well as the air rights above historic landmarks.

Third, FBOs have a robust network of support. As Ellen Idler, the Samuel Candler Dobbs Chair of Sociology and director of the Religion and Public Health Collaborative at Emory University's Rollins School of Public Health, puts it, "The social capital of congregations is that congregations know how to organize and mobilize" (Poole, 2020). "Faith-based organizations are able to use their networks, and they have the space, facilities and resources that can be put to use. People know that this is a safe space and not some scam. It makes so much sense...to collaborate with faith-based organizations because they reach into every community regardless of race, ethnicity and religion, especially among immigrant communities" Idler states (Poole, 2020). This is especially true in disadvantaged communities where congregations are one of the stronger institutions. Atlanta, and other large "culturally Southern" cities, have a rich history of leaders, civic figures, and icons being just as much entrenched in their faith as they were in their professional or civic work. In Atlanta, historic Civil Rights figures like Martin Luther King Jr., Joseph E. Lowry, and Ralph David Abernathy Sr. were all ordained ministers in the Southern Baptist Church and leveraged their leadership positions to forward the goals of the Civil Rights Movement.

Finally, and most controversially, some vocal lawmakers and scholars are of the opinion that because religious institutions operate as tax exempt, FBOs are obligated to build affordable housing on their land as a way of making up that "tax". A county commissioner in

Florida argued that “by occupying valuable parcels of land but not paying property taxes, churches are exacerbating the affordability crisis that many cities are facing” (Schuler, 2017). Issues of property tax exemption made their way to the Massachusetts State Supreme Court when the court ruled that because only a portion of a Catholic shrine’s nearly 200 acres were used for worship purposes the church was not exempt from paying local property tax, and was forced to pay the \$92,000 tax bill. A study conducted by the Lincoln Institute of Land Policy on the impact of nonprofit property tax exemptions found that property taxes on churches would have amounted to approximately \$8 billion nationally in 2011 (Ingram & Hong, 2012). Additionally, Georgia’s state constitution has some rather delicate verbiage when it comes to the legality behind what makes an institution tax exempt. Georgia’s state constitution uses the phrase “institutions of purely public charity” to justify tax exemption (Ingram & Hong, 2012). This phrase has come under staunch criticism under the pretext that some religious act outside of “purely public charity.” Ryan Cragan, an associate professor of sociology at the University of Tampa conducted an audit of The Church of Latter Day Saints and found that that between 1985 and 2007, the church contributed .7% of their annual income directly to charity (Cragan, Yaeger, & Vega, 2012). To put that into perspective, in 2008, Walmart gave double to charities in one year in what The Church of Latter Day Saints gave to charities in 25 years (Cragan, Yaeger, & Vega, 2012). An additional audit by Cragan found that in a sample of 271 various religious congregations across the United States, 29% of their annual incomes were contributed directly towards charitable endeavors. In comparison, The American Red Cross spends 92.1% of its annual revenue addressing the needs of those it intends to help (Cragan, Yaeger, & Vega, 2012). Outside of churches’ expense reports, some religious groups, like the Catholic Conference of Bishops, have been criticized for blatantly lobbying and encouraging certain political affiliations by passing out “voter guides.” In 2012, a paper in the *Rutgers Journal of Law & Religion* argued that lobbying political viewpoints violated their status as a 501(c)(3) (Bekiempis, 2016). Burhans sums up these potential issues poignantly by saying, “If the Church cannot demonstrate and articulate accountability for stewardship and for land-use, they are at risk for billions of dollars in taxation” (Schuler, 2017).

Is a Faith Based Intervention a Practical Solution for Faith Based Organizations?

Why would FBOs want to partner with developers, sell or lease their land, and indulge in the complicated process that is real estate development? What makes it worth a congregation's time and effort?

FBOs have a vested interest in the development of affordable units for several reasons. First, as mentioned above, FBOs are mission driven. Even though housing affordability is a complicated issue, that has never deterred FBOs from working to solve it. As long as there is a community mission that emphasizes the importance of affordable housing there will be FBOs dedicated to help that cause.

Second, the loss of affordable units in a community has a direct impact of the size of the congregation. The displacement of individuals who rent or own homes in a particular community means that they are unlikely to attend the congregation in the community they had to leave. This is dependent on where the household moves, but it is likely that they find a new congregation in their new community. The development of affordable housing does not just quell the displacement of congregation-attending households; it also has the ability for the church to attract new members. When more units are built in a community, there is the potential for new members to be added to the congregation.

Finally, many medium and small sized FBOs are struggling financially. In 2018, The Atlantic reported that 6,000 to 10,000 churches close every year in the United States; a number that will likely grow (Merritt, 2018). Articulated cheekily, yet importantly, the author noted the two best predictors of a congregation's sustainability in the future: "butts and budgets" (Merritt, 2018). These indicators refer to the attendance of congregations and the revenue that they bring in. And by all metrics, American religious institutions seem to be struggling in both. This is the most secular time in American history, and the cost of maintaining large physical structures for less and less parishioners is becoming more prohibitive on the institutional side. General Social Surveys conducted by the Pew Research Center found that since the late 1970's there has been a sharp decline of those who self-identify as Christians and Protestants (Pew Research, 2019). There has been a significant decline even more recently. In 2000, 80% of participants identified as Christian, including 54% who described themselves as Protestant and 25% who were Catholic (Pew Research, 2019). By 2018, 71% of respondents identified as Christian, 48% as Protestant, and 23% as

Catholic (Pew Research, 2019). During this same period, respondents who described themselves as “non-religious” increased from 14% to 22% (Pew Research, 2019). Additionally, attendance at religious services has declined as well. In 2018, 43% of respondents said they attended religious services at least monthly, which was down from 47% in 2000 and 50% in the early 1990s (Pew Research, 2019). Meanwhile, the share of U.S. adults who say they “never” attend religious services now stands at 27%, which is an increase from 18% in the early 2000s and roughly double the number who said this in the early 1990s (14%) (Pew Research, 2019). While religious institutions continue to be the largest recipients of overall charity donations, their numbers have dramatically decreased. A 2015 survey by Giving USA Foundation, a charity watchdog organization, found that \$119.3 billion were given to religious organizations (Tugend, 2016). This number, however, is “down 50% since 1990” and has been decreasing steadily. As Rabbi Rick Jacobs, president of the Union for Reform Judaism, points out, it might be that generations just give in a different way. He points out that, “In prior generations, giving to Jewish organizations was thought of as automatic. Now the younger generation doesn’t feel constrained by doing what their parents or grandparents did” (Tugend, 2016). Giving charitably can happen in many different ways, but younger generations giving fewer financial contributions may results in more houses of worship closing.

METHODS

The data analysis was a three-step process. The first step was collecting the data from a variety of different sources. The second step was cleaning the data through OpenRefine. The third, and final, step was reconciling and organizing the data through Reconcile-CSV.

Obtain Data

The data was all open source and obtained through a variety of channels using the City of Atlanta’s Open Data GIS portal. The most important piece of data was a shapefile and CSV “Tax Parcels 2018.” This was the most comprehensive dataset and contained all of the inputs needed to understand how much land FBOs own in the City of Atlanta. In

addition to the parcel level data, several other layers were obtained that helped in the geospatial analysis, as well as the visualization and aesthetics of the data. I will go into more detail regarding those in the section about geospatial analysis.

Clean Data

In order to understand how much land FBOs own in the City of Atlanta, the data needed to be cleaned using three separate steps. The first step was filtering and sorting the data using text and numerical fields. The second step was clustering and editing by the owner name of the parcel. The third step was to determine who has acquired the most property, along with the characteristics of that land.

When filtering the data, the analysis focuses on one particular variable. The Fulton County tax assessor data identifies “LUC” as the land use code associated with each type of parcel. The land use code identifies what each parcel is used for. In this particular instance, the range between 600 and 699 is useful in identifying operations associated with religious institutions and faith-based organizations. If the LUC codes are string variables it is necessary to convert them to numeric codes by editing the cells in the menu, clicking on “Common Transforms,” and adjusting the variable to “Number.” To add a numeric facet click on the LUC dropdown, click “Facet,” and then select “Numeric Facet.” Then use the slider to select “0-9 inclusive.”

It is important to recognize that while the LUC range 600-699 identifies operations associated with religious institutions, the analysis must also account for parcels that have other uses but are still owned by FBOs. The step of clustering and editing by the owner of the parcel involves clustering a group’s data according to linguistic proximity, which includes, but is not limited to, the number of characters, type of characters, position of characters, similar sounds, etc. This step also includes editing the re-edits based on linguistic clustering, which includes spell check and “Replace Grouping” according to the best spelling, along with others.

The first step was to scroll to Owner Name, a column in the data set that indicates the owner of the parcel. This information is vital because it is the first identifier in filtering what land FBOs own. Key words and phrases like “Church of,” “saint,” “temple,” “Methodist,”

along with many others, were used to cross reference the validity of the data cleaning process. While the owner name data is relatively clean, it would take a prohibitively long time to clean or group by hand in Microsoft Excel, or another statistical software. To complete this task, the user must click the dropdown on “Owner Name,” select “Edit Cells,” then select “Cluster and Edit.” OpenRefine automatically clusters the owner names using the key collision method and the fingerprint keying function. “Key collision methods are based on the idea of creating an alternative representation of a value, a “key,” that contains only the most valuable or meaningful part of the string and “bins” together different strings based on their identical keys” (OpenRefine, 2020). Fingerprint keying is the process that generates the key from a string value and does this by removing leading and trailing whitespaces, changing all characters to their lowercase representation, removing all punctuation and control characters, normalizing extended western characters, splitting the string into whitespace separated tokens, sorting the tokens and removing duplicates, and finally joining the tokens back together (OpenRefine, 2020).

In the clustering results window, OpenRefine allows the user to check “Cluster Validity,” rename clusters entirely, and see how many parcels each cluster owns. Once satisfied with the matching, the user can choose “Select All,” and then “Merge and Recluster.” Merging renames Owner Name using the new cell value field in the clustering toolbox. Reclustering searches for any additional clusters in Owner Name using the same method and keying function. If nothing is visible, the data is ready to move on to the next stage and attempt another keying function.

The N-gram fingerprint method is similar to the fingerprint method described above, but instead of using whitespace separated tokens, it uses N-gram where the “N” can be specified by the user (Yamamoto, Yamaguchi & Yonezawa, 2013). An N-gram of 2 identifies tokens that are two letters or characters away from one another and has many of the same functions as the fingerprint method (Yamamoto, Yamaguchi & Yonezawa, 2013). In the process of clustering owner names of FBOs, an N-gram of two helped to identify more accurate clusters, however selecting an N-gram of one led to a significant number of false positives. It is important to use a combination of N gram sizes in order to most accurately cluster your data.

The next keying method, phonetic fingerprinting, is a way to transform tokens into the way they are pronounced (OpenRefine, 2020). “This is useful to spot errors that are due to people misunderstanding the spelling of a word after only hearing it” (OpenRefine, 2020). The idea being that similar sounding words will end up sharing the same key and thus will be binned in the same cluster. In phonetic fingerprinting, the Metaphone3 function identifies functions as “Clearly Clusters”, “Clearly Not Clusters”, or “Hard To Tell” (OpenRefine, 2020). This part of the process can be time consuming and forces the user to review and select each cluster manually in order to assess its accuracy.

The last method is the Nearest Neighbor Matching method, which provides a “parameter representing a distance threshold, which causes any pair of strings closer than a certain value to be binned together” (OpenRefine, 2020). The nearest neighbor matching method uses the Levenshtein Distance, which is a measure of the minimal number of edit operations that are required to change one string into the other (OpenRefine, 2020). For example, “church” and “Church” have an edit distance of 1 because changing the “c” into a “C” is the only operation required. On the other hand, “St. David” and “Saint David” have an edit distance of four because three letters need to be inserted and one “.” need to be deleted.

After this is completed the user can finally assess who owns property and what the characteristics of that property are. While it is possible to do this in Open Refine, the data becomes more easily manipulated after reconciling and organizing it in Reconcile-CSV, in order to prepare the data for export in Microsoft Excel.

Reconcile Data

Reconcile-CSV is an extension of OpenRefine that allows pattern matching against an external source. While OpenRefine searches within a column for possible matches for clustering, Reconcile-CSV attempts a one-to-one match to a column in a separate database. This allows the user to return exact matches where available, return closest matches where exact matches don't exist, and add data from additional columns based on matches.

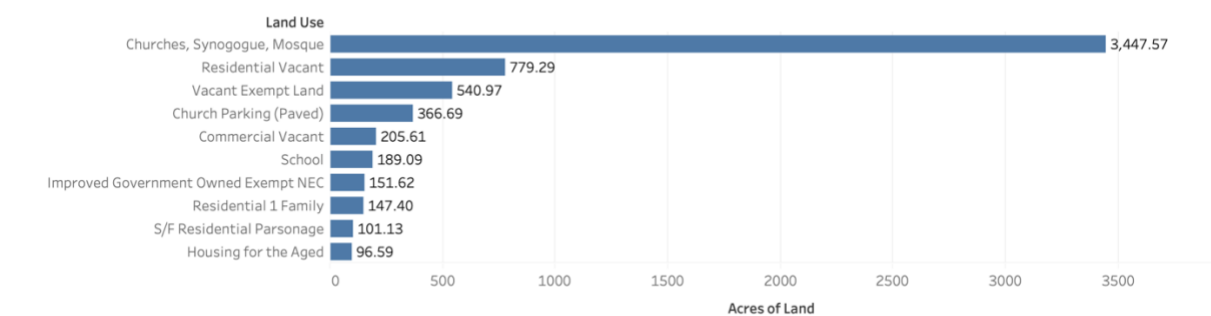
Once Reconcile-CSV is opened and the data set is imported, the first step was to standardize street abbreviations to match the parcel level data format in order to improve

scoring. This is done by selecting the “Property Street” column, then “Edit Cells,” then “Replace,” then selecting the “Whole Word” option. The next step is to add “Reconciliation Service” by going from “Property Street” to “Reconcile,” then click “Start Reconciling,” then click “Add Standard Service.” Then the user can start reconciling by selecting “Automatch Candidates” with “high confidence.” After completing reconciliation, the user has a ranked list of matches for each address. The user can filter out exact matches to declutter the screen by selecting “none” from the “Judgement Filter,” or look for cases where best match does not have the highest score, or where none of the top five matches look correct. In order to do this the user will click “Search For Match,” then look at the top ten matches and select one. The user can also edit the “Look Up” field to edit the text or click “Don't Reconcile,” which clears the reconciliation data from the cell. The user can then match each cell to its best candidate by clicking “Reconcile,” then “Actions,” then “Match Each Cell To It's Best Candidate.” The most important step in this process is to then copy Parcel ID values based on match. The Parcel ID values will later be used to join this new reconciled data to the Tax Parcel 2018 shapefile downloaded from the City of Atlanta. Once the user is confident that the Parcel ID values are matched accurately, they can export the CSV file which can then be used in Microsoft Excel, in either a CSV file or an Excel workbook.

ANALYSIS AND RESULTS

After the data was obtained, cleaned, and reconciled, a series of geospatial analyses were conducted to achieve the results. The final dataset was joined to the shapefile of tax parcels in the City of Atlanta by each parcel's unique Parcel ID, which allowed for the breakdown of parcels via geography. The analysis and results do not cover the portion of Atlanta in Dekalb county because the data I worked with limited to Fulton County parcel data. To understand the incredible amount of land that FBOs own, I thought it was important to first show how much land that FBOs own, and who that land is owned by in Fulton County.

Top Faith Owned Land Uses in Fulton County



Sum of Acres of Land for each Land Use. The marks are labeled by sum of Acres of Land.

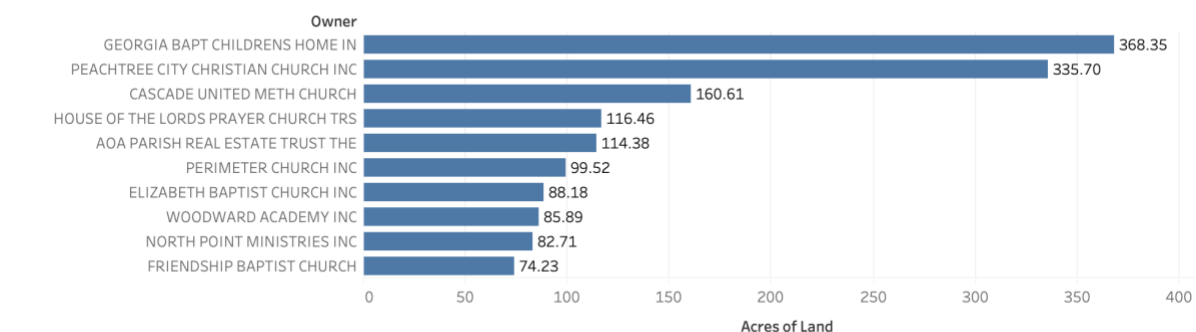
Top Faith Owned Land Uses in Fulton County

Land Use	Acres of Land
Church Parking (Paved)	366.69
Churches, Synagogue, Mosque	3,447.57
Commercial Vacant	205.61
Housing for the Aged	96.59
Improved Government Owned Exempt NEC	151.62
Residential 1 Family	147.40
Residential Vacant	779.29
S/F Residential Parsonage	101.13
School	189.09
Vacant Exempt Land	540.97

Sum of Acres of Land broken down by Land Use. Color shows sum of Acres of Land. The marks are labeled by sum of Acres of Land.

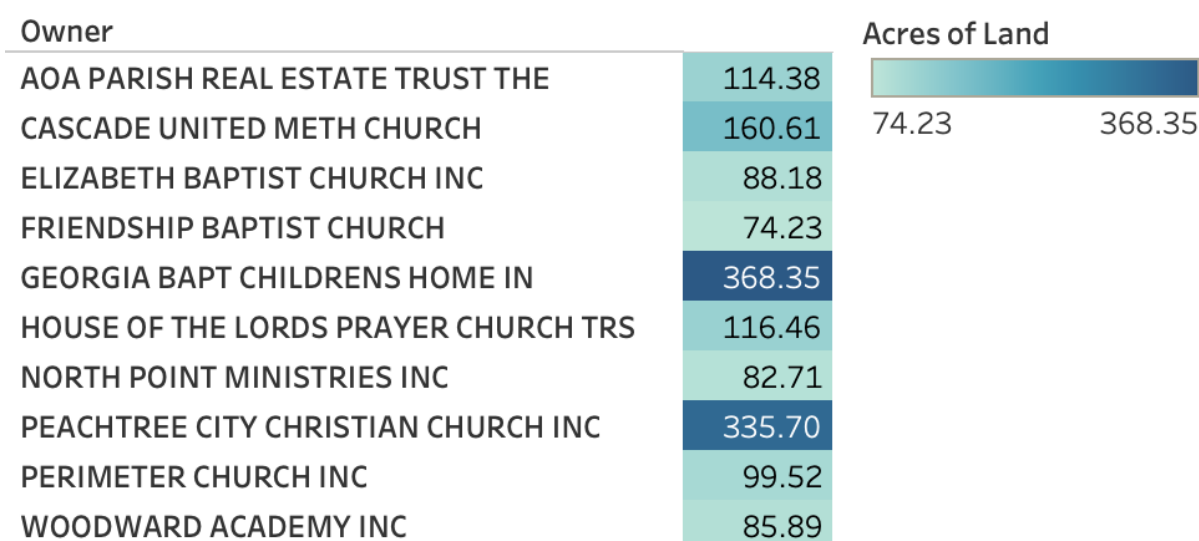
There are 6,277.61 total acres of FBO owned land in Fulton County. The graphs above illustrate the top 10 land uses of FBO owned land by acreage. While the physical houses of worship (churches, synagogues, mosques, etc.) make up the largest share of FBO owned land at 3,447.57 acres, they only account for 54% of the total land. In fact, the next four largest land uses are either vacant, or underdeveloped (church parking). Those four land uses combined make up 1,892.56 acres, or 30% of total FBO owned land.

Faith Based Land Owners in Fulton County



Sum of Acres of Land for each Owner. The marks are labeled by sum of Acres of Land.

Faith Based Land Owners in Fulton County

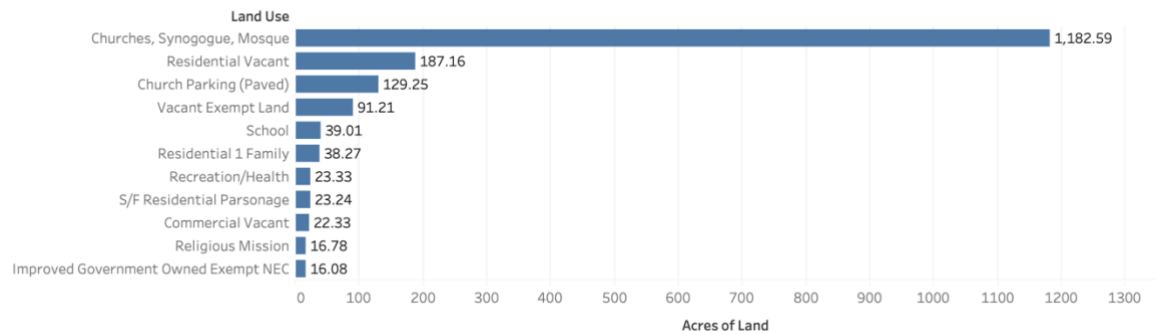


Sum of Acres of Land broken down by Owner. Color shows sum of Acres of Land. The marks are labeled by sum of Acres of Land.

The above charts illustrate who the largest landowners of FBO owned land are in Fulton County. There are 1,164 different FBOs that own land in Fulton County, with the top 10 land owners shown above. The top 10 land owners account for 1,526.04 acres, which is 24% of the total FBO owned land in Fulton County. There is a large discrepancy between the mean and median amount of land that an individual FBO owns. The mean acreage owned by an FBO is 5.39 acres, while the median acreage owned by an FBO is 0.37 acres. This reveals that FBO owned land is significantly skewed by several FBOs that own a significant amount of land, rather than many FBOs owning similar, relatively small amounts

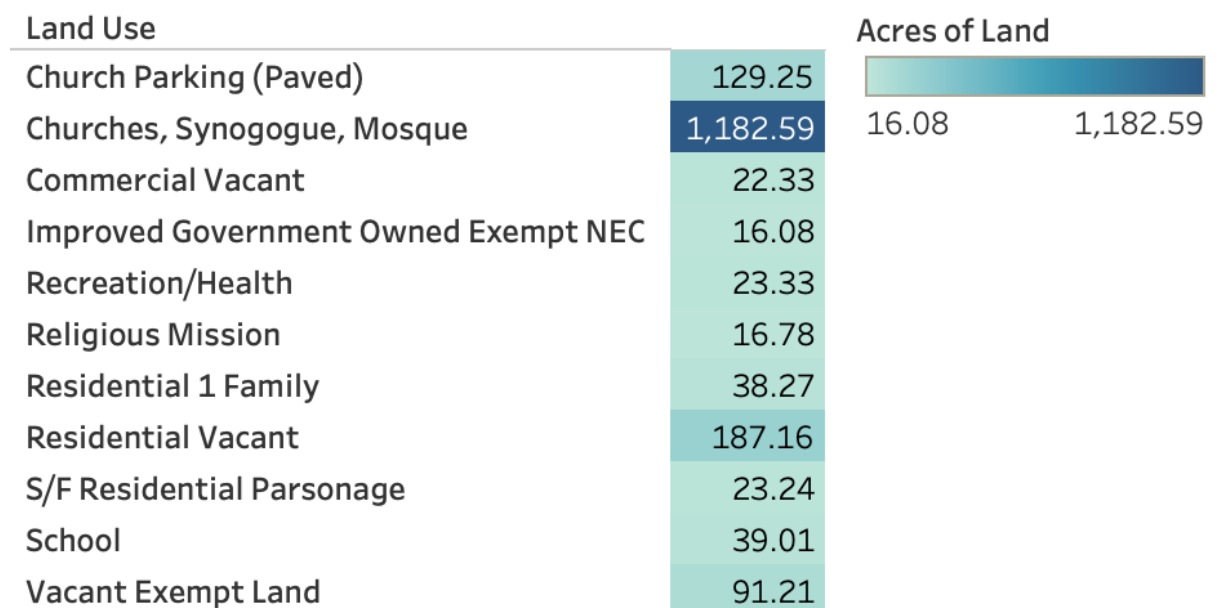
of land. Further analysis shows that only 592 FBOs, or 51%, of all FBOs in Fulton County own more than 1 acre of land.

Top Faith Owned Land Uses in Atlanta



Sum of Acres of Land for each Land Use. The marks are labeled by sum of Acres of Land.

Top Faith Owned Land Uses in Atlanta

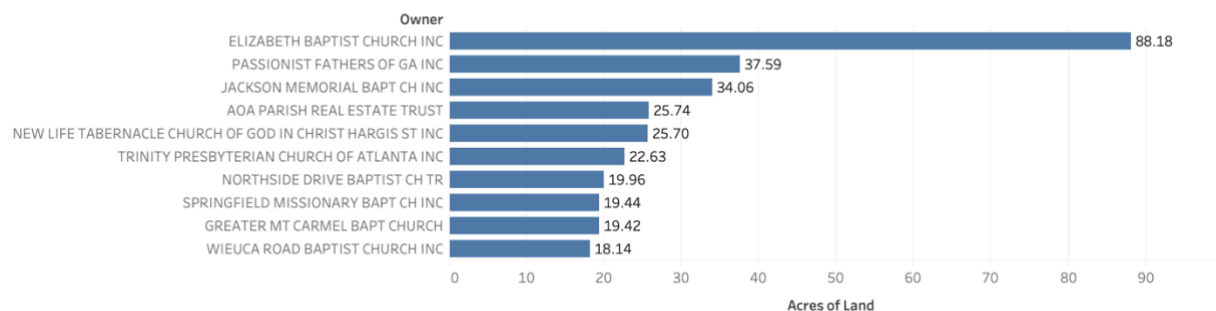


Sum of Acres of Land broken down by Land Use. Color shows sum of Acres of Land. The marks are labeled by sum of Acres of Land.

There are 1,821.25 total acres of FBO owned land in Atlanta. The graphs above illustrate the top 10 land uses of FBO owned land by acreage. In Atlanta, the physical

houses of worship make up the largest share of FBO owned land at 1,128.59 acres, which accounts for 62% of the total land. This is a noticeable difference between Atlanta, and Fulton County, where more of Atlanta's FBO owned land is used by the physical houses of worship. Atlanta follows a similar trend to Fulton County in that the next three largest land uses are either vacant, or underdeveloped. Those three land uses combined make up 407.62 acres, or 22% of total FBO owned land.

Faith Based Land Owners in Atlanta



Sum of Acres of Land for each Owner.

Faith Based Land Owners in Atlanta



Sum of Acres of Land broken down by Owner. Color shows sum of Acres of Land. The marks are labeled by sum of Acres of Land.

The above charts illustrate who the largest landowners of FBO owned land are in Atlanta. There are 768 unique FBOs that own land in Atlanta, with the top 10 land owners shown above. The top 10 land owners account for 310.87 acres, which is 17% of the total FBO owned land in Atlanta. Similar to Fulton County, there is a large discrepancy between the mean and median amount of land that an individual FBO owns. Although the discrepancy is not as large as Fulton County's, Atlanta's data still suggests that the mean

amount of land is skewed by several FBOs that own a significant amount of land, rather than many FBOs owning similar, relatively small amounts of land. The mean acreage owned by an FBO is 2.37 acres, while the median acreage owned by an FBO is 0.32 acres. Further analysis shows that only 285 FBOs, or 37%, of all FBOs in Atlanta own more than 1 acre of land.

This data helps answer the question of “how much land do FBOs own in the City of Atlanta?”, but in order to assess what sites would be appropriate for developing affordable housing, further analysis was needed. The following geospatial analysis was conducted with several considerations in mind:

- 1) Only vacant parcels were considered with the idea that these parcels could immediately be purchased and built upon without demolition of a building on site. While church parking was previously mentioned above, I thought that more granular analysis, along the lines of parking counts and usage reporting, needed to be conducted in order to accurately report whether specific parking lots would be potentially developable.
- 2) In an effort to be the most thorough in visualizing where potential developments occur, some of the following maps include all parcels of any acreage. Creative site design and innovative building layouts can solve many issues with odd shaped parcels, or parcels that are too small, however, I continued this analysis with the assumption that parcels under .25 acres would be filtered out of potential developable sites. I did give additional consideration to adjacent parcels under .25 acres with the same owner, with the assumption that they could be assembled to form one larger parcel over the .25-acre threshold.
- 3) Initially, one of the layers of geospatial analysis was to identify parcels that could potentially be developed today without the need for a zoning variance. The reason behind this step was to filter out zoning classes that would be difficult or prohibitive to develop a medium to large affordable housing development, however, I found that acreage acted as the greatest inhibitor to this problem. After further consideration I recognized that zoning variances occur in

a significant portion of many development deals and are often granted if they help meet the greater needs of the community and/or city.

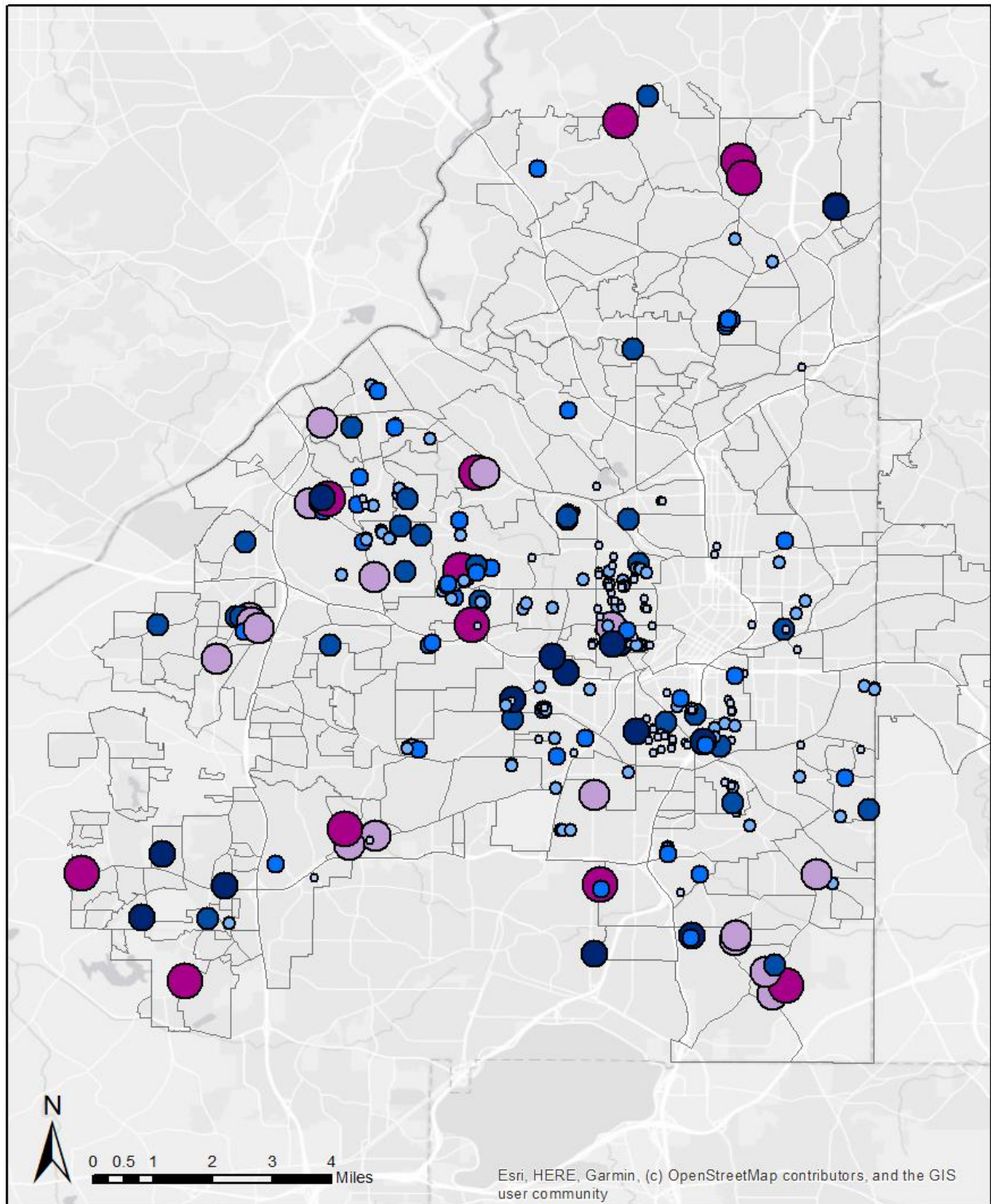
- 4) I chose to include parcels that met all of the Transit-Oriented Development (TOD) qualifications even if they were in Fulton County, but outside of the city limits of Atlanta. I felt that even if parcels were not in the City of Atlanta, being in a TOD radius afforded potential residents similar, if not the same, opportunities to participate in the benefits of living in Atlanta.

The geospatial analysis was conducted in three steps. The first step was to identify parcels within one mile of the top 25 census tracts with the highest employment densities. This was conveniently located in a robust data set from the Atlanta Regional Council that cited the number of employment opportunities in each census tract. This selection criteria was based on the opportunity for housing to be located in close proximity to Atlanta's largest job centers. A majority of the identified census tracts are in Atlanta's three central business districts (CBDs): Buckhead, Downtown, and Midtown.

The second step was to identify parcels located within half a mile (.5 miles) of a Metropolitan Atlanta Rapid Transportation Authority (MARTA) rail station. This half mile distance is the technical boundary of what MARTA deems can be considered a Transit-Oriented Development (TOD). MARTA's TOD plan calls for densifying parcels within the half mile radius of a rail station in order to increase ridership and decrease the dependency that Atlantans have with single-occupancy automobiles. The half mile radius was selected for three reasons. First, one half mile is generally considered a distance that is "walkable" for an able-bodied person. .5 miles would take that person approximately 10 minutes to walk. This ensures that residents of a potential affordable housing project could easily access reliable transportation without needing to own a vehicle. Second, the half mile radius satisfied MARTA's TOD plan, and helps further the goals that MARTA has laid out when carrying out their TOD development goals. Third, parcels within a TOD buffer are under significant pressure from development, meaning that they are some of the most likely to be susceptible to newer, more expensive development. It is critical that affordable housing development opportunities be strongly considered in TOD .5-mile buffers.

The third step was to identify parcels located within the BeltLine's Inclusionary Zoning (IZ) overlay. The BeltLine's IZ overlay extends in a .5-mile radius along the BeltLine. "The IZ Program requires all new residential developments of 10 units or more to set aside at least: 10% of their units for incomes at or below 60% of Area Median Income (AMI); or 15% of their units at or below 80% of AMI; or pay a one-time in-lieu fee, to be paid at 15% of AMI, per unit in the sub-area that the developer has chosen to opt-out of, in-lieu of setting aside affordable units" (City of Atlanta Department of City Planning, 2018). The BeltLine has been one of the most significant catalysts for new development in Atlanta, which has resulted in dramatic development pressure that has increased housing prices. The BeltLine IZ Program was instituted with the hope that it would keep residents in their communities, particularly in the South and West of Atlanta, while the BeltLine continued to bring amenities that would benefit their livability. The BeltLine's IZ overlay mandates an affordability component, which aligns with the goals of this analysis

Vacant Faith Owned Parcels by Acre



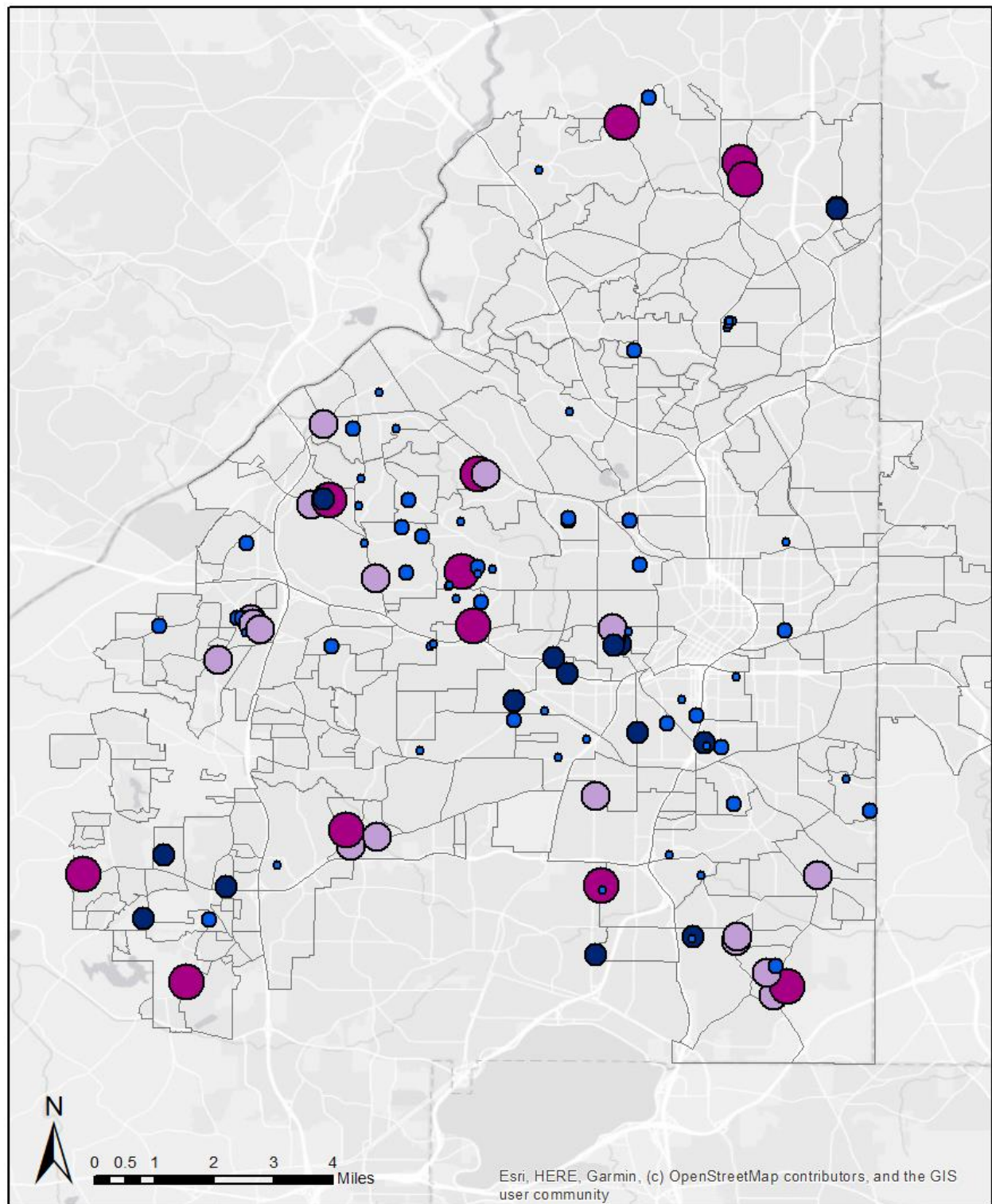
Vacant Faith Owned Parcels LandAcres

- ◻ 0.01 - 0.15
- ◻ 0.16 - 0.25
- ◻ 0.26 - 0.50

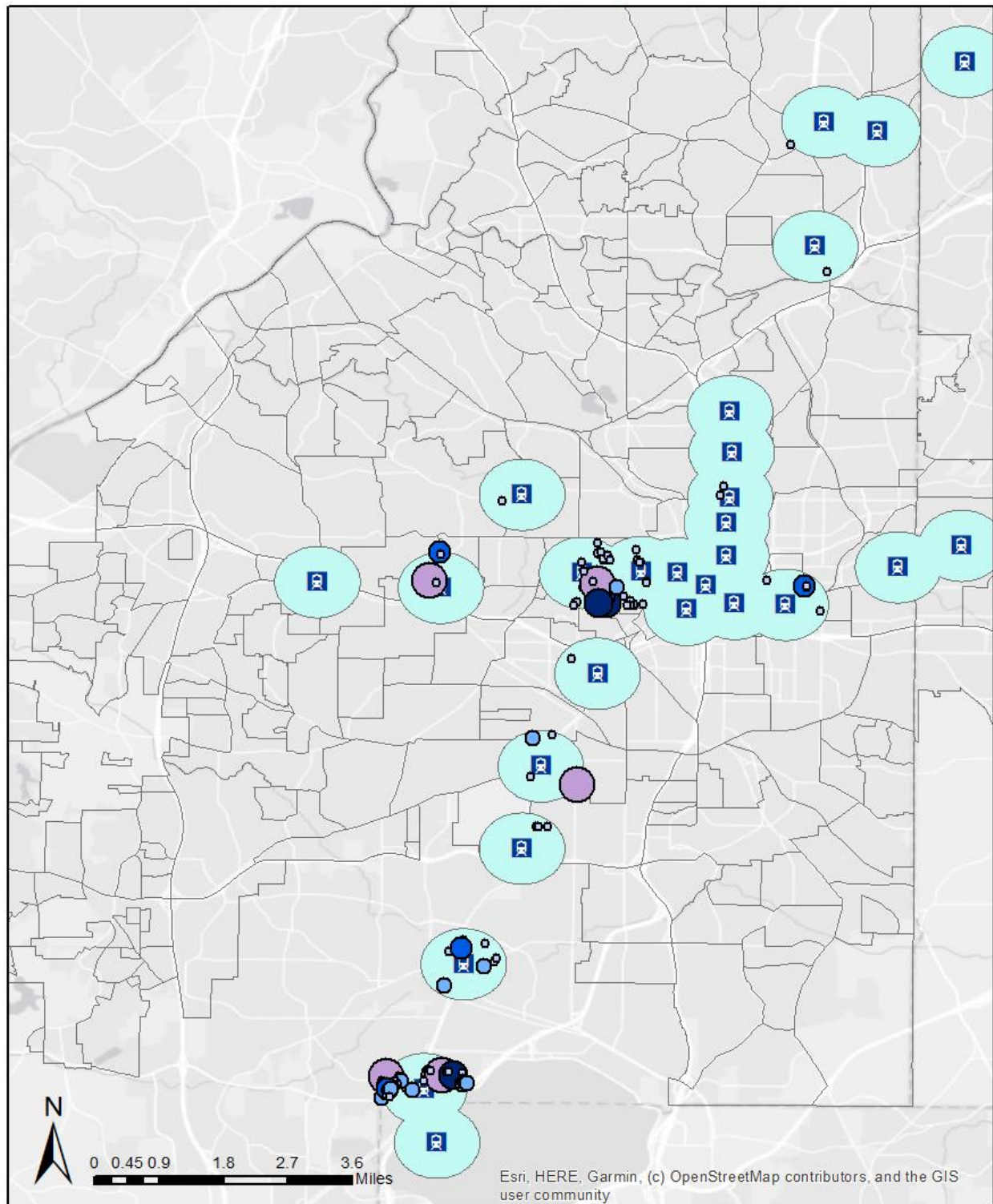
- ◻ 0.51 - 1.00
- ◻ 1.01 - 2.00
- ◻ 2.01 - 5.00
- ◻ 5.01 - 14.00

◻ Neighborhoods

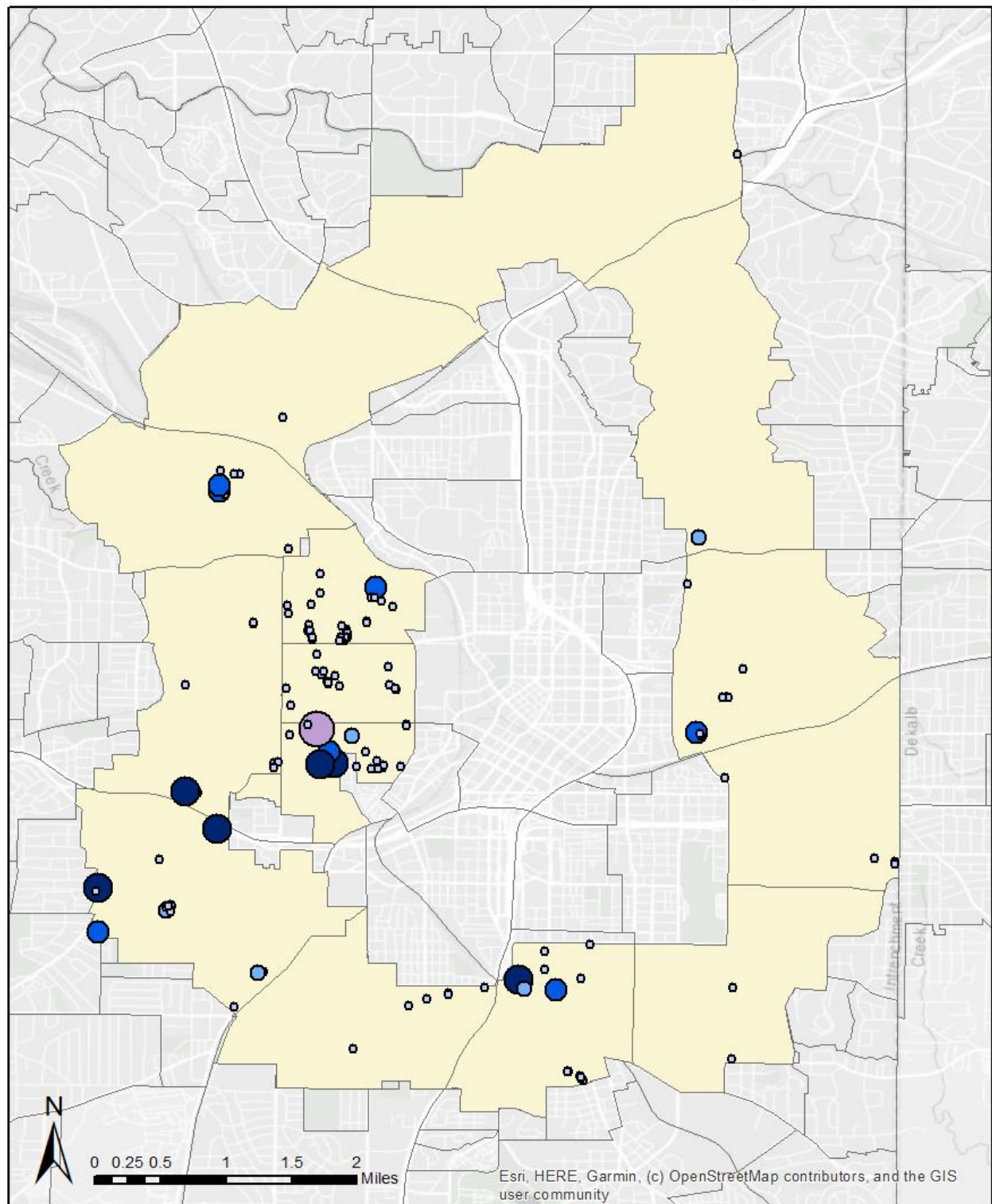
Vacant Faith Owned Parcels Over .25 Acres



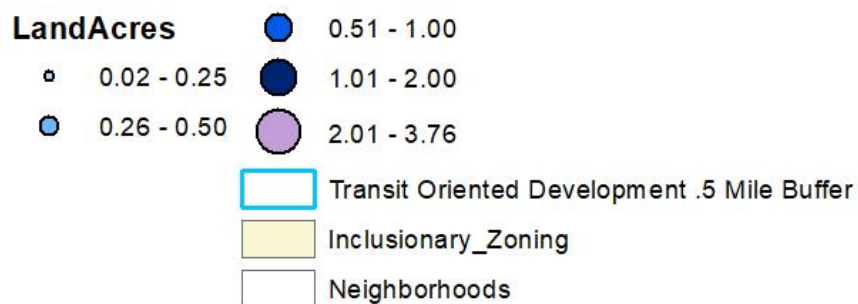
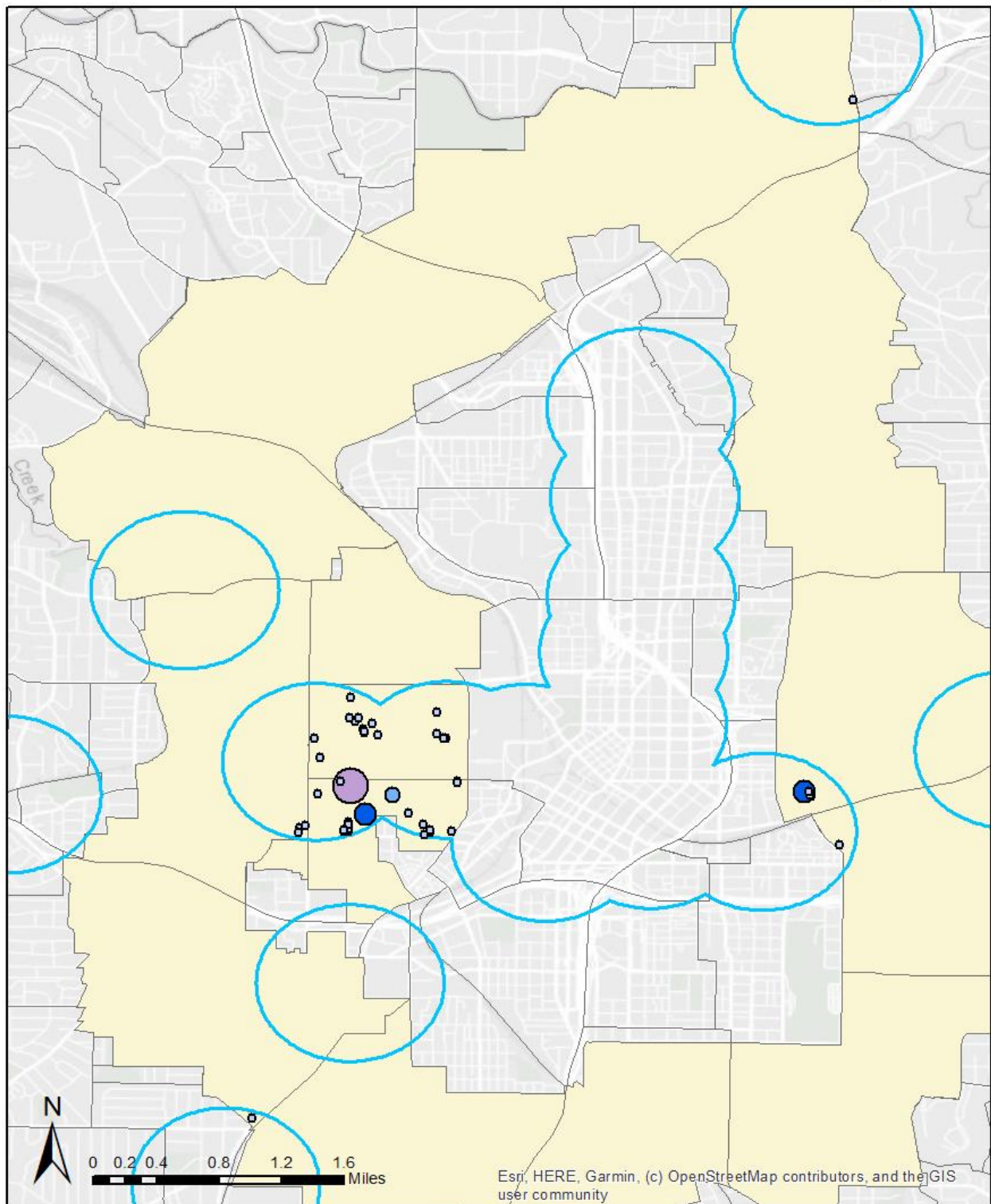
Vacant Faith Owned Parcels in Transit Oriented Development Buffers



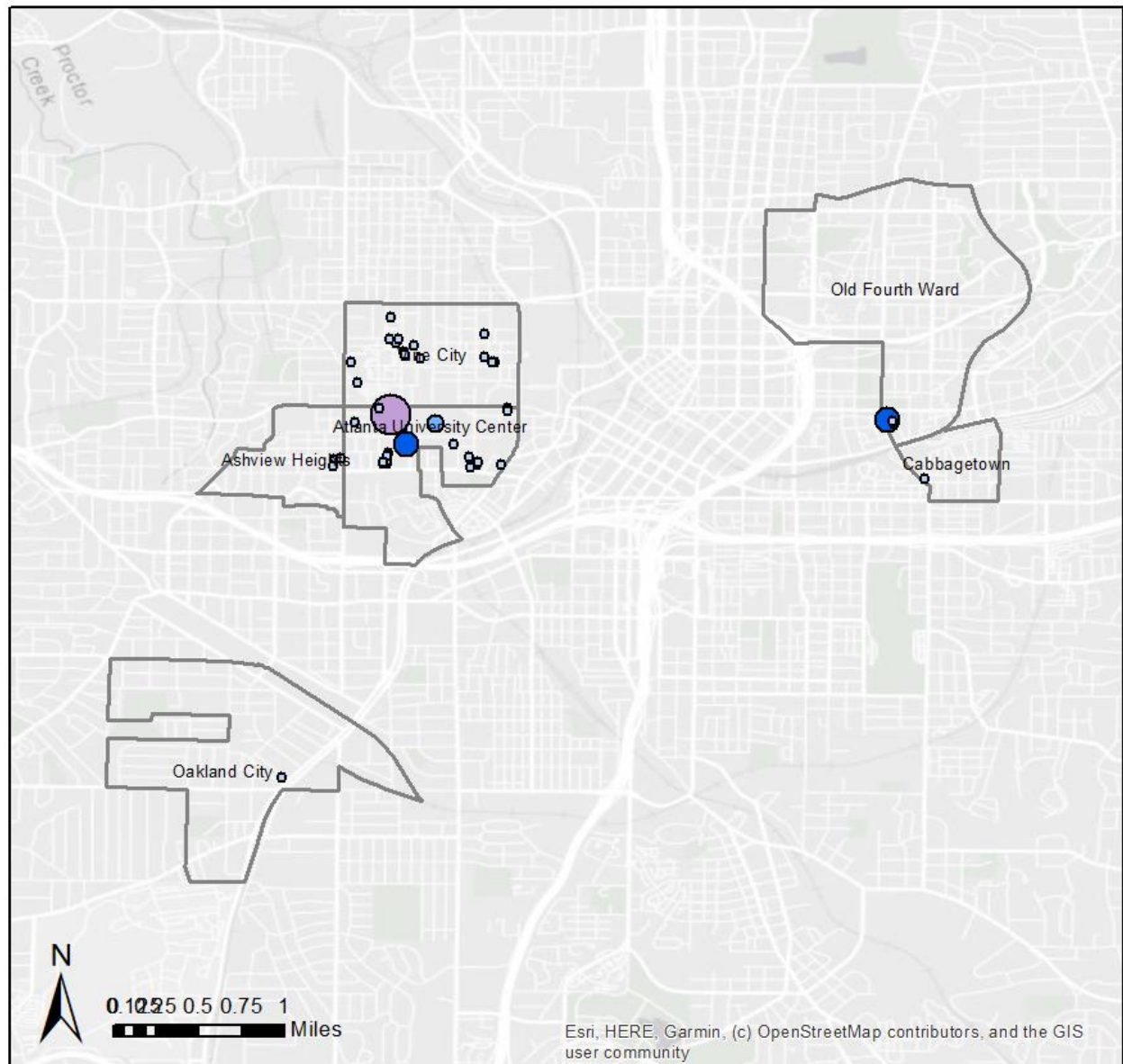
Vacant Faith Owned Parcels in the Beltline Inclusionary Zoning Overlay



Vacant Faith Owned Parcels within the TOD Buffer and Beltline Overlay

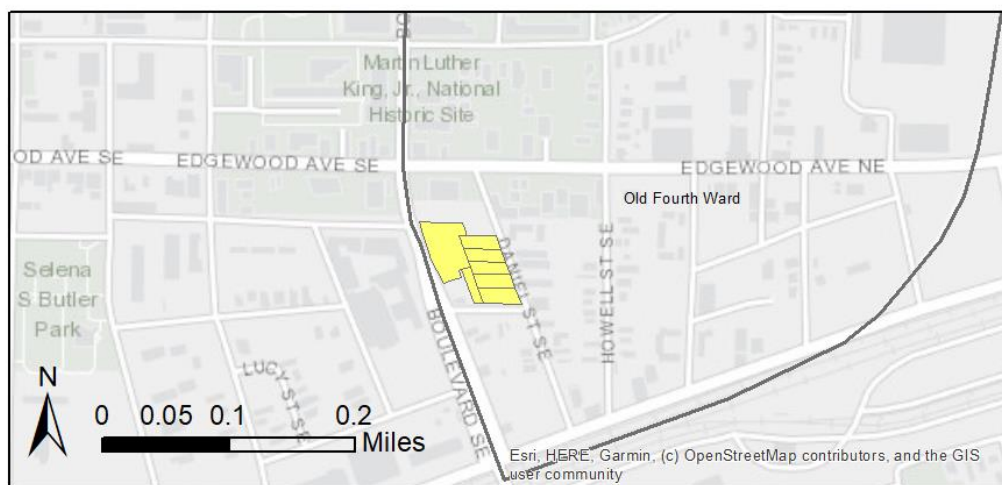
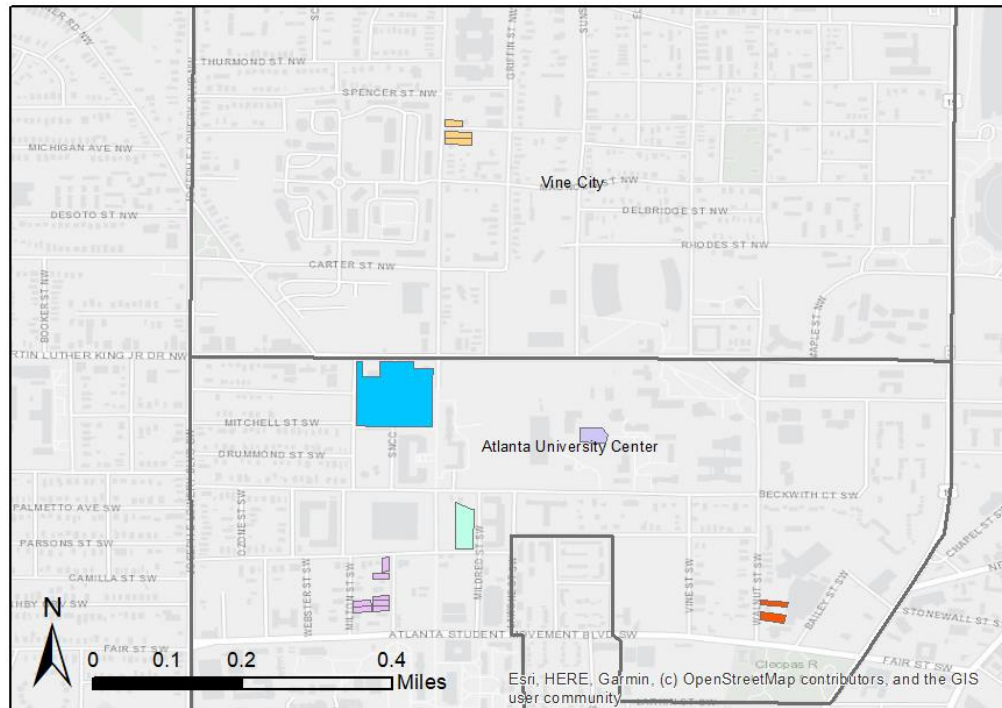


Vacant Faith Owned Parcels within the TOD Buffer and Beltline Overlay



When every layer of analysis was considered, the result was 51 potential parcels across six different neighborhoods. When filtering the total acreage of parcels, and potential assemblage opportunities, the result was seven potential sites across three neighborhoods.

Potential Developable Sites



CONCLUSION

A faith-based approach to solving affordable housing is complex. After all, this analysis is only the first half of the battle. The second half involves contacting churches, establishing relationships, gaining the trust of a community and congregation, and finding the perfect development partner. If all of those steps can come to fruition, a faith-based approach to solving affordable housing in Atlanta can be incredibly successful. The seven sites selected are not perfect, but in the context of a city that is struggling more and more every day to house its most vulnerable, they might not have to be. What these seven sites will ensure however, is that potential residents would be afforded an equal opportunity to use reliable public transportation, to have access to employment centers, and to enjoy the benefits that the BeltLine has brought.

An important note looking forward in this research is that there were many parcels that were just not close enough to a MARTA station or The BeltLine. While those parcels do not make it into this analysis, there is significant merit in looking at them for future solutions. Because while academically, there is a difference between a parcel that is .5 miles away from a MARTA station and a parcel that is .6 miles away from a MARTA station. Practically, the difference is a two-minute walk. Practically, the difference is negligible. And practically, any opportunity to develop affordable housing for those who need it the most, is deserving of a second look.

WORKS CITED

- Bekiempis, V. (2016, February 13). Are Churches Making America Poor? Retrieved from <https://www.newsweek.com/2013/10/25/are-churches-making-america-poor-243734.html>
- Burns, Richard. 2018. Putting Faith in Housing: A Primer for All Partners. The NHP Foundation.
- Calugar, Laura. 2018, May 8. How Can Religious Institutions Ease the Affordable Housing Crisis. Retrieved from <https://www.multihousingnews.com/post/how-can-religious-institutions-ease-the-affordable-housing-crisis/>.
- City of Atlanta Department of City Planning. (2018, January). Inclusionary Zoning. Retrieved from <https://www.atlantaga.gov/government/departments/city-planning/office-of-housing-community-development/inclusionary-zoning-policy>
- Cragun, R. T., Yaeger, S., & Vega, D. (2012). Research Report: How Secular Humanists (and Everyone Else) Subsidize Religion in the United States. *Free Inquiry*.
- DeSilver, D. (2018, August 7). For most Americans, real wages have barely budged for decades. Retrieved from <https://www.pewresearch.org/fact-tank/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/>
- Fulton County Tax Appeal Project. (n.d.). Retrieved March 2020, from https://www.legallaidprobono.org/our-stories/item.9251Fulton_County_Tax_Appeal_Project
- Hula, R., Jackson-Elmoore, C., & Reese, L. (2008). The emerging role of faith-based organizations in the low-income housing market. *Innovations in Effective Compassion*, 103.
- In U.S., Decline of Christianity Continues at Rapid Pace. (2019, December 31). Retrieved From <https://www.pewforum.org/2019/10/17/in-u-s-decline-of-christianity-continues-at-rapid-pace/>
- Ingram, G. K., & Hong, Y.-H. (2012, June). Value Capture and Land Policies. Retrieved from https://www.lincolnst.edu/sites/default/files/pubfiles/2200_1526_LP2011_ch14_Assessing_the_Nonprofit_Property_Tax_Exemption_0
- Jacobs, K. (2019, October 1). One Region, Many Economics: Special Report on the Affordable Housing Crisis. Retrieved from <https://www.frbatlanta.org/economy-matters/community-and-economic-development/2019/10/01/special-report-on-the-affordable-housing-crisis>
- LIHTC Celebrates Three Decades of Bipartisan Support, Success. (2017, September 20). Retrieved from <https://www.novoco.com/notes-from-novogradac/lihtc-celebrates-three-decades-bipartisan-support-success>

Mariano, W. (2014, November 5). Betting on 'The Bluff'. Retrieved from <https://www.ajc.com/news/betting-the-bluff/GW97tLLGFaQIVe6RXmtMeL/>

McCue, D. (2020, March 4). Digging Deeper into the Story: The Widespread Implications of the Growth in High Income Renters on Low- and Middle-Income Renter Households - Blog: Joint Center for Housing Studies of Harvard University. Retrieved from <https://www.jchs.harvard.edu/blog/digging-deeper-into-the-story-the-widespread-implications-of-the-growth-in-high-income-renters-on-low-and-middle-income-renter-households/>

McLaughlin, B. (2016, February 6). Faith-Based Development Initiative. Retrieved from <https://www.enterprisecommunity.org/where-we-work/mid-atlantic/faith-based-development-initiative>

Merritt, J. (2018, November 26). America's Epidemic of Empty Churches. Retrieved from <https://www.theatlantic.com/ideas/archive/2018/11/what-should-america-do-its-empty-church-buildings/576592/>

National Congress for Community Economic Development. 1999. "Coming of Age: Trends and Achievements of Community-Based Development Organizations." Washington, D.C.: NCCED.

Northam, M., & Elassar, A. (2018, May 29). Fulton property tax values could jump 28 percent, board says. Retrieved from <https://www.ajc.com/news/local/fulton-property-tax-values-could-jump-percent-board-says/XxafHHtf3L2JTxSbeiZFXM/>

Nowak, Jeremy, et al. 1989. Religious Institutions and Community Renewal. Philadelphia: Delaware Valley Community Reinvestment Fund.

OpenRefine. (n.d.). Clustering In Depth. Retrieved February 2020, from <https://github.com/OpenRefine/OpenRefine/wiki/Clustering-In-Depth>

Poole, S. (2020, January 1). Faith-based organizations have vital role to play in health of congregations. Retrieved from <https://www.ajc.com/lifestyles/health/caring-for-body-and-soul/RQ8pu9Lri5xEYCcB5RMWwRj/>

Schuler, T. (2017, October 18). Mapping one of the world's largest landowners. Retrieved From <https://www.curbed.com/2017/10/18/16483194/catholic-church-gis-goodlands-esri-molly-burhans>

Tugend, A. (2016, November 3). Donations to Religious Institutions Fall as Values Change. Retrieved from <https://www.nytimes.com/2016/11/06/giving/donations-to-religious-institutions-fall-as-values-change.html>

Trubey, J. S., & Deere, S. (2019, June 26). Atlanta mayor unveils ambitious affordable housing plan for the city. Retrieved from <https://www.ajc.com/news/local-govt--politics/atlanta-mayor-unveils-ambitious-affordable-housing-plan-for-the-city/oLN2ubz41pXRtG2WbzPuQL/>

Vidal, Avis. 1992. *Rebuilding Communities: A National Study of Urban Community Development Corporations*. New York, NY: Community Development Research Center, New School for Social Research.

Vidal, Avis. 1998. "Sustained Excellence Awards: Profiles of the Awardees." Washington, D.C.: Fannie Mae Foundation.

Vidal, Avis. 2001. "Faith-Based Organizations In Community Development." U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

West, Charlotte. 2019, January 10. U.S. Faith Communities Are Tackling the Housing Crisis. Retrieved from <https://gen.medium.com/u-s-faith-communities-are-tackling-the-housing-crisis-2cba66dd0f7e>.

Walker, Christopher and Mark Weinheimer. 1998. *Community Development in the 1990s*. Washington, DC: The Urban Institute.

Yamamoto, Y., Yamaguchi, A., & Yonezawa, A. (2013). Building Linked Open Data towards integration of biomedical scientific literature with DBpedia. *Journal of biomedical semantics*, 4(1), 8. <https://doi.org/10.1186/2041-1480-4-8>

Zillow Research. (n.d.). Housing Data. Retrieved March 2020, from <https://www.zillow.com/research/data/>